UNIVERSITI TEKNOLOGI MARA

DESIGN AND FABRICATION OF SEMI-AUTOMATED CLOTHES FOLDING MACHINE

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ABSTRACT

T-shirt folding is a universal method for keeping clothing organised and packed. The manual folding process for clothes is time-consuming and labour-intensive, resulting in inefficiency and inconsistent folding. The objective is to develop a machine that can partially automate the folding process, improving efficiency and consistency. It involves cutting process which will contribute to the fabrication of the frame. The machine is using a microcontroller which will control the movement of the motors. This project contributes to streamlining the clothing folding process, enhancing productivity, and reducing manual labour.

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CHAPTER ONE INTRODUCTION

1.1 Background of Study

People all throughout the world now fold their clothing every day as part of their regular practise. The introduction of the cloth folding board greatly simplified people's lives, especially when folding a lot of clothing. Unfortunately, the present fabric folding board may still be too complicated for individuals to utilise on their own.

The issue typically arises in the textile industry since manually folding a lot of T-shirts is a tiresome process. Additionally, folding clothes is a laborious and repetitive chore that may cause soreness or weariness in the hands and arms. Furthermore, achieving a nice and uniform fold when folding the clothes is a common challenge, particularly for those with little skill or experience. This may cause shirts to be wrinkled or folded unevenly, which can take time to fix and may detract from the appearance of a wardrobe. Moreover, it can take a while to fold a lot of shirts, especially for people with busy schedules or little free time.

The manual clothes folding board that is widely used in our society. Even though conventional clothes folding boards are widely used, there a several weaknesses of the product such as it can leads to discomfort to the user especially when there is a lot of clothes to fold. The usage of conventional clothes folding boards is no longer appropriate, particularly considering technological advancement. However, it was discovered that the present design may be improved to enhance the user experience.

The aim of this project is to improve the current cloth folding board. The enhancement that will applied to this project is the automation of the cloth folding board. The cloth folder will offer the user a superior mechanism and operation that is more practical and ergonomic by enhancing the current cloth folding board.

1.2 Problem Statement

Folding clothes can be a time-consuming task, especially when dealing with large quantities of items. If you want to make sure the shirt appears neat and put